

Curriculum for Agricultural Science Education (CASE) - Natural Resources and Ecology

2016-2017 STEM Scale-Up Program

Overview: CASE™ utilizes science inquiry for lesson foundation, and concepts are taught using activity-, project- and problem-base instructional strategies. In addition to the curriculum aspect of CASE™, the project ensures quality teaching by providing extensive professional development for teachers that leads to certification.

Grade Levels: 9-12

Program Summary

Natural Resources and Ecology course is a foundation course within the CASE™ sequence of courses. The course provides students a variety of experiences that are in the fields of natural resources and ecology. Science, mathematics, reading and writing components are woven in the context of agriculture, and students will use the introductory skills and knowledge developed in this course throughout the CASE™ curriculum.

Program Objectives and Description

Students will explore hands-on projects and activities while studying topics such as land use, water quality, stewardship and environmental agencies. Study of the natural world including biomes, land, air, water, energy, use and care, as well as a focus on issues surrounding man's interaction with the Earth, will be addressed in this course. Students will select an ecosystem to study throughout the course and apply principles of natural resources and ecology from each unit of study to that ecosystem.

What does the program provide to the educator?

- CASE™ Curriculum – 172 rigorous lessons that have been cross-walked to national content standards for math, science, English and agriculture with built in pedagogical/instructional strategies for differentiated instruction.
- Professional Development Training Institute
 - Two week training held during the summer
 - Lodging
 - Most meals
 - All institute material expenses
- Materials/Equipment to implement CASE™
- Workshops at NAAE Conference
- Access to NAAE Communities of Practice (Professional Learning Communities) on the state and regional level
- Teachers Services including purchasing lists, technology support and professional development
- Purposeful assessment of the concepts taught

What is required by the educator in order to implement this program?

- Attend two weeks of CASE™ Curriculum Institute (Institute dates and locations will vary based on module requested)
- Commit to adopt and teach CASE™ curriculum upon return from institute (2017-2018 school year)
- Travel expenses above the grant stipend
- Secure equipment and supplies to teach CASE™ course above the award allocation

Website (with link to Standards Alignment): <http://www.case4learning.com/index.php/curriculum/case-courses/natural-resources-and-ecology> and http://www.case4learning.com/images/documents/CASE_Brochure_-_NRE.pdf

Program Video: https://www.youtube.com/watch?v=YNGvaj_fztA